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MEAT GOAT MARKET FEASIBILITY NORTHEAST NEW BRUNSWICK

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TABLE OF CONTENTS
NORTHEAST NEW BRUNSWICK
GOAT MEAT MARKET FEASIBILITY

I.	Introduction	2
II.	Résumé et Conclusions	3
II.	Summary and Conclusions	6
III.	Common Elements of the Goat Livestock Industry	9
IV.	Markets for Goat Meat in Atlantic Canada and the Northeastern US	21
V.	Goat Meat Industry Trends	34
VI.	Production Feasibility - Goat Meat	40
	APPENDIX	

1

INTRODUCTION

This report outlines our understanding of the New Brunswick Department of Agriculture and Rural Development's requirements for a Feasibility Study for the Development of a Meat Goat Industry in North-east New Brunswick.

Our report is comprised of two reports, one for meat and the other for milk. The Summary and Conclusions chapters for both reports are presented in both English and French.

Due to the exploratory nature of the industry, we have drawn conclusions from the US experience, and from the Ontario and Western Canadian experience in the production and marketing of product.

II

RÉSUMÉ ET CONCLUSIONS

A. CONTEXTE

Avec les importations et les ventes à la ferme, le marché canadien de viande de chèvre représente entre 100 000 et 120 000 carcasses par année. Le Canada importe environ 672 tonnes de viande de chèvre congelée et refroidie. Si on calcule 30 livres par carcasse, on obtient l'équivalent d'environ 50 000 chèvres importées par le Canada. Le marché américain représente environ 1,2 à 1,5 million de carcasses.

Le marché de la viande de chèvre est presqu'exclusivement ethnique. Manifestement, il existe un marché grandissant pour la viande de chèvre dans le nord-est des États-Unis, en Ontario et au Québec. Cela est dû à la concentration de communautés ethniques dans ces régions et à l'augmentation du nombre d'immigrants provenant de pays ayant une tradition de consommation de viande de chèvre.

Actuellement, 7,5 millions de résidents d'origine ethnique dans le nord-est des États-Unis consomment de 300 000 à 400 000 animaux et 1,5 million de résidents d'origine ethnique à Toronto et à Montréal consomment de 90 000 à 100 000 carcasses. Il existe un marché limité au Canada atlantique pour environ 1 000 carcasses.

Le marché est difficile à pénétrer puisque chaque groupe ethnique possède des exigences particulières quant à la date de livraison et à la conformation animale quelque peu différente. Il est risqué d'élever des chèvres uniquement pour un marché ethnique particulier, car les animaux, qui ne sont pas prêts à temps pour le marché, valent beaucoup moins.

Vu l'absence de normes de classement et de transformation, il est difficile de promouvoir le produit sur les marchés de consommateurs non ethniques. Sans un classement et une inspection uniformes du gouvernement fédéral, les carcasses ne peuvent pas être expédiées à l'échelle interprovinciale ou internationale. Il faut retenir aussi que les supermarchés n'accepteront pas des produits qui ne sont pas inspectés par le gouvernement fédéral. La seule solution est de commercialiser les chèvres vivantes sur des marchés ethniques moins grands.

On espère que les marchés ethniques stimuleront la croissance. Ceux-ci préfèrent acheter de la chèvre fraîche au niveau local pour les cérémonies et des carcasses congelées pendant le reste de l'année.

Les tendances relatives à la transformation et à la production à la ferme sont négatives pour le Nouveau-Brunswick. Bien que les marchés ethniques se développent, et que le nombre de personnes intéressées à travailler dans l'industrie de la viande de chèvre augmente, l'industrie au Canada atlantique travaille en sous-traitance. Le nombre de producteurs et de transformateurs dont les installations sont inspectées par le gouvernement fédéral diminue. L'industrie doit établir une masse critique afin de pouvoir tirer profit des marchés à l'extérieur de ses limites. Il faut établir une norme, au moins 300 chèvres de boucherie, pour assurer un niveau rentable de synergie et d'intégration avec les producteurs laitiers actuels comme Cabot Caprine à Terre-Neuve et Fox Hollow, en Nouvelle-Écosse. Lorsque tous les animaux de réforme des grandes laiteries sont combinés avec ceux des producteurs de chèvres de boucherie, moins de 1 500 chèvres et chevreaux par année sont élevés au Canada atlantique. Pour assurer le développement de l'industrie, les secteurs des chèvres laitières et de boucherie doivent collaborer pour accroître les volumes de production de viande.

B. FACTEURS DE RÉUSSITE DÉTERMINANTS

1. Les marchés doivent être ciblés. Le marché des chèvres de boucherie est presque inexistant au Canada atlantique. Il faut établir un lien avec les marchés ethniques de Montréal, Toronto et Boston. Les producteurs essaient de déterminer le marché et de vendre le produit pour les fêtes, mais cela est probablement trop difficile. Il serait plus facile de produire de 50 à 60 chevreaux vivants par mois à des prix établis pour des marchés stables. La production pourrait être axée sur le commerce grec, italien, jamaïcain ou musulman, dépendant du poids et des conformations de l'animal.

2. Des alliances pourraient être conclues entre les producteurs de chèvres laitières afin d'obtenir le nombre suffisant d'animaux pour compléter des chargements prévus régulièrement. Pour maximiser la force et la rentabilité du marché, il faudra prendre des dispositions avec d'autres producteurs de chèvres laitières et de boucherie des Maritimes pour l'achat et la commercialisation de leurs chevreaux et chèvres de réforme. Des races de chèvres laitières devront servir à la production de viande car les femelles de qualité peuvent être vendues pour la production laitière tandis que les chevreaux et les chèvres mâles peuvent être engraissés pour le commerce de la viande.

3. La transformation à valeur ajoutée n'est pas possible puisque le nombre d'animaux est trop faible et que les exigences du marché sont

trop variées. Si on vend uniquement des animaux vivants, il n'est pas nécessaire d'établir un abattoir qui doit être inspecté par le gouvernement fédéral. Si les carcasses parées sont mises en marché, un abattoir inspecté par le gouvernement fédéral est nécessaire puisque tous les principaux marchés de viande de chèvre sont à l'extérieur du Nouveau-Brunswick. Le coût d'une petite usine de transformation à la ferme inspectée par le gouvernement fédéral se situe entre 150 000 $ et 200 000 $, si le nouveau bâtiment est muni d'un bon équipement usagé. Pour assurer la rentabilité d'une petite installation, il faudra abattre environ 200 animaux par semaine (chèvres, biches, moutons, etc.).

4. La gestion de la production et le contrôle des coûts sont des éléments essentiels puisque la viande congelée d'Australie est facile à importer et que les importations d'animaux vivants du Texas et du sud des États-Unis sont possibles. Ces deux sources de viande établissent un plafond sur les prix potentiels pour la viande de chèvre au Canada. Les prix pour le poids vif doit être de 1 $ et 1,25 $ la livre. Pour produire une viande à des coûts aussi bas, les animaux doivent être nourris d'herbe autant que possible. Les chèvres doivent être mises au pâturage sur des lots boisés, dans des marais salants et sur des terres agricoles de très faible qualité. Elles doivent être élevées sur le terrain le moins cher, être nourries des aliments les moins chers (un minimum de criblage de céréales fourragères) et avec un minimum de bâtiments et d'abris.

5. Les animaux de plus grande taille doivent être mis en marché. Bien que le marché souhaite des chevreaux, leur petite taille limite la distance de déplacement à partir du Nouveau-Brunswick sans mortalité. Le Nouveau-Brunswick doit donc élever des animaux de plus grande taille et faire concurrence plus directement avec les chèvres nourries d'herbe qui proviennent du Texas.

En résumé, il serait difficile d'établir une exploitation rentable de chèvres de boucherie au Nouveau-Brunswick, sans d'abord établir le marché et conclure des alliances avec d'autres producteurs de chèvres laitières et de boucherie pour établir les stocks. La transformation à valeur ajoutée de la viande de chèvre n'est pas possible en raison des volumes aussi faibles.

SUMMARY AND CONCLUSIONS

A. GENERAL

With imports and domestic farm gate sales, the Canadian market for goat meat is estimated to be around 100,000 to 120,000 carcasses per year. Canada imported some 672 tonnes of frozen and chilled goat meat. On a 30 lbs. per carcass basis, this means Canada imported almost 50,000 goat equivalents. The US market is about 1.2 – 1.5 million carcasses.

The market for goat meat is almost exclusively ethnic. Clearly there is a growing market for goat meat in the US Northeast and in the Ontario and Quebec markets. This is because of the concentration of ethnic communities in these areas and the continued increase in immigration from countries with the tradition of eating goat meat.

The current market is the 7.5 million ethnic residents in the US Northeast who consume some 300 - 400,000 animals, and the 1.5 million ethnic residents of Toronto and Montreal who consume 90 - 100,000 carcasses. There is a limited market in Atlantic Canada for some 1,000 or so carcasses.

The market is difficult to penetrate since each ethnic group has a slightly different animal conformation and delivery date requirement. To raise animals exclusively for an individual ethnic market is risky, since animals, which may not be ready to market on time,are worth considerably less.

The lack of grade and processing standards makes it difficult to promote the product into mainstream, non-ethnic consumer markets. Without uniform federal grading and inspection, carcasses can't be shipped interprovincially or internationally. Equally important is the fact that mainstream supermarkets will not handle non-federally inspected product. This leaves only the option of marketing live goats in smaller volume ethnic markets.

It is hoped that growth will come from the ethnic markets. Ethnic markets prefer to buy fresh, local goats for ceremonial purposes and frozen carcasses during the rest of the year.

The farm production and processing trends are negative for New Brunswick. While ethnic markets are growing, and the number of people interested in entering the goat meat industry is growing, the Atlantic

Canada industry is contracting. There are a declining number of producers and federally inspected processors. The industry must develop to a critical mass so that it can take advantage of markets outside its borders. Scale is required, at least 300 doe meat goats, to allow a profitable level of synergy and integration with existing dairy producers such as Cabot Caprine in Newfoundland, and Fox Hollow in Nova Scotia. When all the cull animals from the major dairies are combined with meat goat producers, less than 1,500 cull and kid goats per yearare raised in all of Atlantic Canada. For the industry to go ahead, the meat and milk goat sectors must work together to increase meat production volumes.

B. CRITICAL SUCCESS FACTORS

1. Markets must be targeted. The market for meat goats is primarily a non-Atlantic Canada one. Connection must be made with Montreal, Toronto and Boston ethnic markets. While producers try to time the market and sell for festive holidays this is likely too difficult. It would be easier to produce for stable monthly markets of 50-60 live kid goats per month at set prices. Production might be targeted to the Greek, Italian,Jamaican or Muslim trade, depending on the animal weights and conformations.

2. Alliances must be made with dairy goat producers in order to get sufficient numbers of animals to make regularly scheduled full loads. To maximize market strength and profitability, it will be necessary to make arrangements with other Maritime meat and dairy goat producers to purchase and market their kids and culls. The use of dairy goat breeds for meat production will be necessary since it allows quality females to be sold for milk production while culls and dairy males can be fattened for the meat trade.

3. Value-added processing is not possible since animal numbers are too small, and market specifications are too varied. By selling only live animals, the need for establishing a small federally inspected abattoir is eliminated. If dressed carcasses are to be marketed, a federally inspected abattoir is necessary since all major goat meat markets are outside of New Brunswick. The cost of establishing a small, on-farm federal inspected processing plant is in the range of $150,000 to $200,000 based on the construction of a small new building equipped with good used equipment. Some 200 animals per week (goats, deer, sheep, etc.) will need to be slaughtered to make a small facility such as this marginally economic.

4. Production management and cost control is critical since frozen meat imports from Australia are easy to arrange, and live animal imports from Texas and the US South are possible. These two meat sources effectively cap the potential prices for Canadian meat goats. Live weight prices must be in the $1 - 1.25 a pound range. To produce meat at these low cost lev-

els, animals must be grass fed as much as possible. Goats will need to be grazed on woodlots, salt marshes and extremely poor quality farmlands. They must be raised on the cheapest land, utilizing the cheapest feeds (a minimum of feed grains only screenings) and a minimum of buildings and shelters.

5. Larger sized animals must be marketed. While the market desires kid goats, their small size restricts the distance they can travel from New Brunswick mortality free. This means that New Brunswick must raise larger sized animals and compete more directly with the cheap grass fed goats shipped from Texas.

In summary, it will be difficult to develop an economicmeat goat operation in New Brunswick, without first developing the market and making alliances with other dairy and meat goat producers for stock. Value added processing of goat meat is not possible at these low volumes.

III

COMMON ELEMENTS OF THE GOAT LIVESTOCK INDUSTRY

Goat meat and milk appear to be undergoing a rebirth in North America. Many of the goat meat and milk market sectors had developed in the past, died away, and have only begun a comeback in the past 10 - 15 years. For example, the goat industry was based on the sale of cheese and milk to a large and growing European immigrant community, and as a means of rangeland brush suppression in the US. Goat was a larger industry in the US in the 1920s than it is today. The industry has gone through both ups and downs and is currently on its way up.

The current industry interest is particularly astonishing and meetings to discuss goat production in both Canada and the US are being massively attended. Extension officers in New York State, as well as Quebec and Ontario, are finding that at farmer meetings with an expected attendance of 10 or 12, 40 people or more are showing up.

There are a number of reasons for this rebirth in goat livestock. Some of the more important include:

- **A changing lifestyle**. The "baby boom" generation of North Americans is the first in recorded history, to have been flooded with information regarding health, diet and body image. People are interested in lowering their fat and cholesterol intake. This has lead to two issues: a switch away from most red meat to white meats, vegetarian diets, cheeses, and extreme carcass leanness in red meats.

- **A restructuring of agriculture**. The changing nature of agriculture, which once faced instability created by the normal ebb and flow of commodity cycles, is now being affected by trade reform. Many producers in Western and Eastern Canada are unable to make adequate returns from current crop production and are looking for new sources of farm income.

- **New 'farming" entrants**. The last 30 years has seen a growth in part-time farmers. Many of these part-time farmers are urban income earners who are called "sundowners." These are people who come home from their non-farm jobs to begin their farm work at sundown. Sundowners have flocked to the breeding aspects of the specialty livestock industry – goats, ratites, deer etc. The

high values of the animals, small physical size, ease of handling, and the need for relatively small land areas, make them ideally suited to sundowners. Sundowners have money, land and time. Equally important is the knowledge factor: since no one else had raised these specialty animals before, none of the local full-time farmers had any bragging rights or production advantage.

- **Immigration has changed the North American ethnic mix.** Both Canada and the United States have experienced a vast change in ethnic structure. In the past 30 years, immigration to North America has switched from Northern Europe, to Southern Europe, the Middle East and Asia. And, in the case of Canada, we have a larger number of immigrants from the Caribbean than from Northern Europe. The United States is experiencing a massive immigrant inflow from Latin America, the Middle East and the Asian sub-continent. This change in immigration has seriously affected food consumption patterns. Southern Europeans, Caribbean, Middle Eastern and Latin American immigrants have revived goat and sheep production. In fact, the Iranian and Arab community in Los Angeles and New York have single handedly revived the live sheep and goat industry.

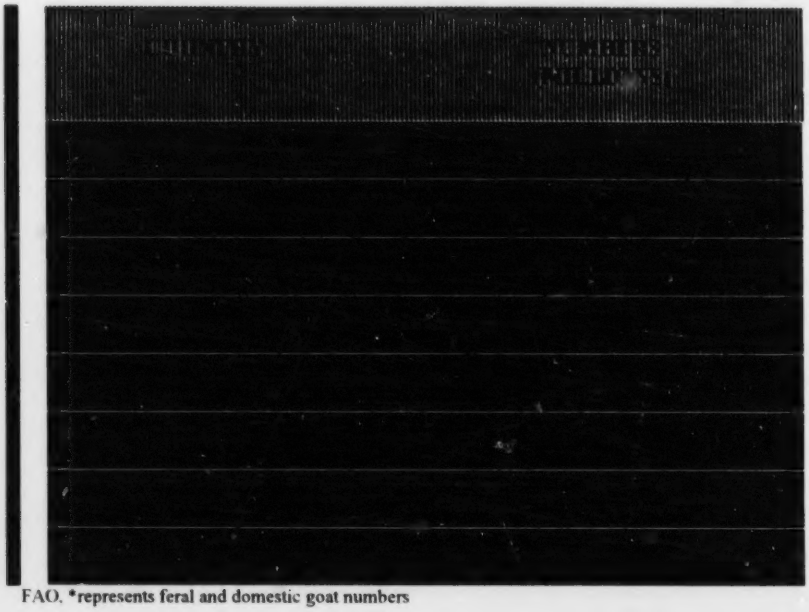
Due to this relatively new revival in Canada, the goat industry is slowly building to a critical mass. The following section gives a brief global overview of the industry.

A. GLOBAL OVERVIEW OF THE GOAT INDUSTRY

Goat industry advocates often state that more people in the world consume goat meat and milk than any other animal product. Goat is the meat of Asia. Exhibit 1 shows this. Two of the most populous countries in the world, China and India, are the major producers of both goat meat and milk. China has over 137 million head while India has over 120 million. This compares to Canada which has around 130,000 animals.

Exhibit 1

GOAT INDUSTRY – MEAT AND MILK
GLOBAL GOAT PRODUCTION



FAO, *represents feral and domestic goat numbers

1. Asia's Preferred Meat is Goat

Asian countries prefer to eat goat as opposed to beef for a number of reasons. These preferences are due to :

- Religious issues.
- Small physical size enhances consumption and portability. These are important issues since refrigeration and transport are not widely available. (Small animals can be led or carried home for backyard slaughter.)
- Non competition for food resources with humans. Goats eat cellulosic materials as opposed to cereals that humans eat.
- Provide a wide array of products – meat, milk, fiber, hides, etc.

Asian countries consume their entire production and are now beginning to import.

In the Western world, the largest goat producers are in Europe. Greece has in excess of 10 million animals, which is more goats than the rest of Europe combined.

2. Australia World's Largest Goat Exporter

The major goat exporter in the world is Australia. Australia is responsible for about 60% of global trade. Australia exports (1999) some 10,924 tonnes of meat, or 700,000 carcasses, valued at $22.8 million. Their major markets for frozen meat are: Taiwan (4,472 tonnes), USA (4,017 tonnes), Caribbean (1,124 tonnes) and Canada (506 tonnes).

Australia has 3 million or so animals. Australia is unique since the vast majority of their industry is comprised of feral animals. These are wild goats that range throughout the outback. The FAO data shown in Exhibit 2 gives an indication of the problem in data collection of this feral production. Domestic production is 180,000 animals, while exports are over 700,000 carcasses. This difference is feral production.

Australia markets a very poor quality animal, in carcass and in live form. Australia exported some 25,347 live animals to Malaysia and to the United Arab Emirates. These animals are shipped live for the Muslim holiday season.

They also export some live breeding stock, primarily Boer goats.

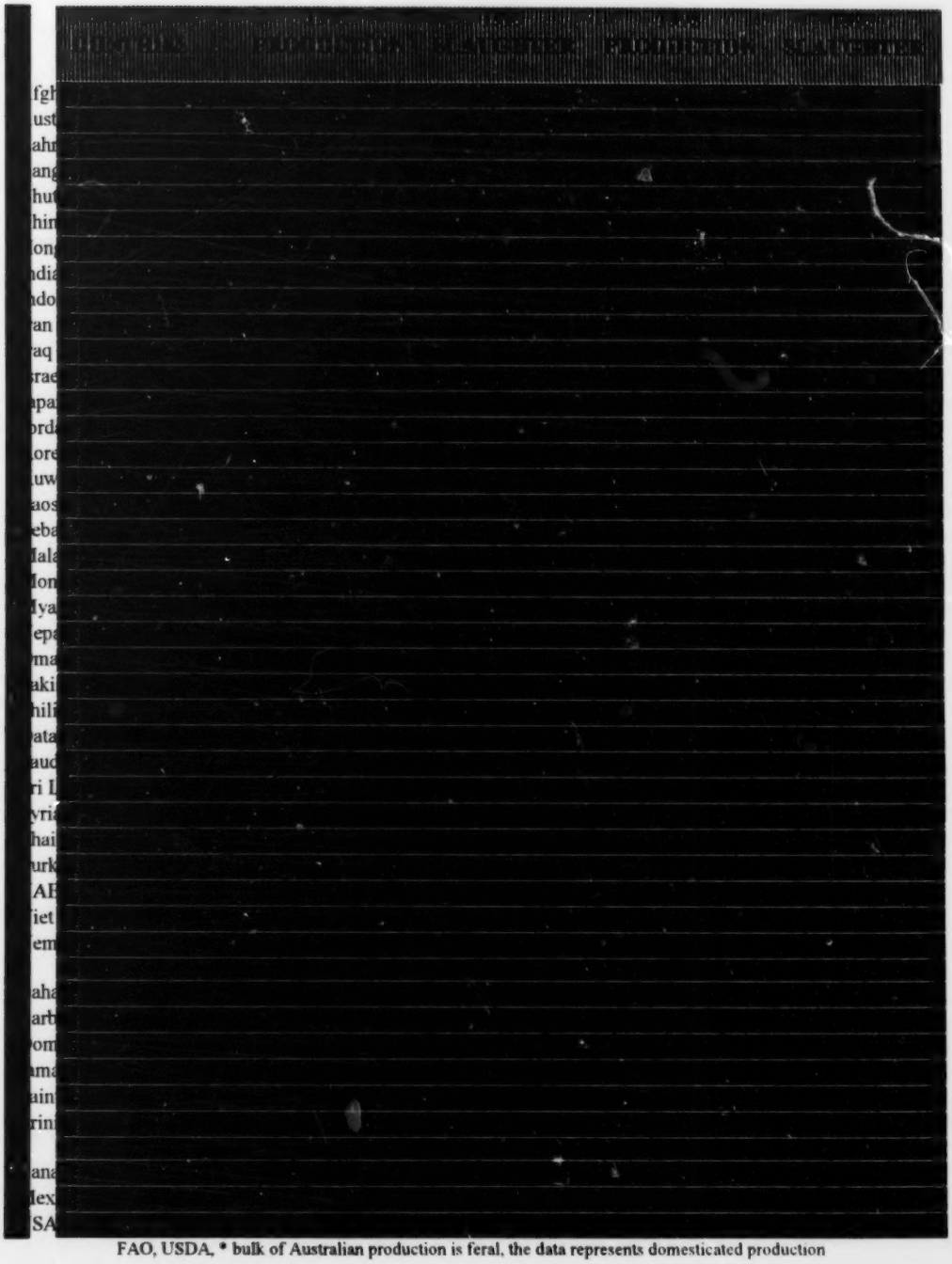
3. Third World Goat Markets Difficult to Access

The major goat importing countries are Asian and Asian sub continent countries. These third world countries, however, have a number of problems for potential exporters. These include:

- Inferior meat – Goat is considered to be the lowest quality red meat. The meat is at the bottom of the import lineup for most countries. The first choice meat is beef followed by chicken and pork. Total global trade is less than $50 –60 million US.

Exhibit 2

GOAT PRODUCTION AND SLAUGHTER
1999, 1995 (HEAD)

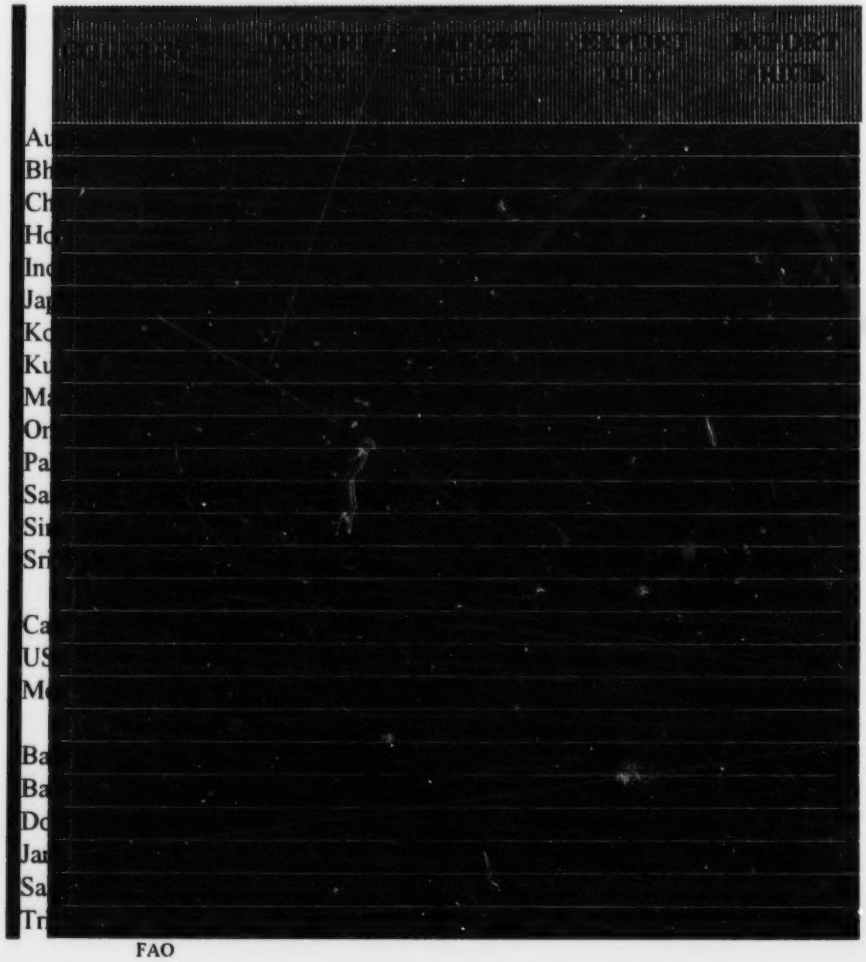


FAO, USDA, * bulk of Australian production is feral, the data represents domesticated production

- Import restrictions – countries such as Jamaica have import restrictions (licensing) on red meats. They require quota access. The import market is thought to be no larger than 600 tonnes. The problem is that the country is short of foreign exchange. Import and export data are shown in Exhibit 3 and 4.

Exhibit 3

GOAT MEAT IMPORT AND EXPORT STATISTICS
1998, (MT, $000US)



FAO

- Lack of refrigerated storage – is a major problem for goat exporters. Most third world countries such as the United Arab Emirates, Kuwait, Bangladesh and Malaysia all

have refrigerated storage, but low cost meats have to compete with higher valued frozen red meats, fish and fruits. Australian export firms have found that their goat meat could not compete to gain storage space from Australian mutton. Their average export prices were in the range of $1.90 US per kg. (about $1.30 a pound) for a frozen carcass.

- Lack of refrigeration at the retail and consumer level. Should the product make it beyond the port, many goat meat wholesalers were finding that there was insufficient refrigeration at the retail level. This has caused refrigerated goat meat to be sold as inferior to fresh meat. Discounts on product ranged from 10 – 35% less than fresh goat meat. Local fresh goat meat comprised over 95% of the market in Jamaica. Most frozen goat meat is sold HRI (Hotel, Restaurant and Institutional.)

- Seasonality of the market is dramatic. The bulk of production and slaughter in Muslim countries occurs on the annual religious feast days. In countries such as Egypt, as much as 60% of the live animals (sheep, goat) are slaughtered during these feast days. This seasonality is also reflected in the US and Canadian slaughter industry in which many of the small goat slaughter houses and packers are only open during the 2 weeks leading up to Eid, and Easter holidays to handle the holiday demand overflow.

  Much of the international trade in goat meat is due to this seasonal shortfall in slaughter capacity. Many of the Middle Eastern countries are importing to ease the pressure on their facilities. Live animal and slaughter prices at Hallal slaughter facilities are said to rise by as much as 30% in advance of these holidays.

- Lack of market data – particularly as related to the domestic production side of the goat business. No one seemed to have more than a broad guess at goat production and marketing. Most goats are taken to market and traded as live animals. As many as half of the animals are assumed to be bartered, so there is no price, conformation or volume data being recorded in the Caribbean, Middle East and Asian sub continent markets.

  The best available data is Australian export price and conformation data. Australian conducts about 50% of the worlds export trade. Their total exports amount to around $27 million in 1999, up from around $16 million in

1998. Based on the FAO data the import prices of goat meat varies from around $0.60 US per pound up to around $1.15 US per pound. The total global goat meat trade is around $50 –60 US million.

- Non comparability of markets – each national market is statistically reporting a different animal. The FAO and USDA data is unclear as to what is marketed and slaughtered. Countries in the Caribbean want larger old animals, while the Greek markets want small kids. In addition, some markets wish to buy carcasses, skin on, skin off, 6 piece cut, etc. Reporting is inconsistent.

B. US HAS 3 MILLION GOATS

The US goat industry is physically disjointed. The bulk of production takes place in the US South and Southwest, while consumption is primarily in the US Northeast and West coast.

About 75% of meat goats, and 80% of all US goats, are raised in Texas, Mississippi, Georgia and the other 9 Southern states. Some 2.5 million or so animals are in the South. A further 500,000 animals are spread throughout the rest of the US.

Texas is home to 350,000 Spanish (cashmere) goats with a further 100,000 in the rest of the South. But Texas is home to 90% of the 2,000,000 Angora goats. Angora goat numbers have been declining since the Wool and Mohair Incentive – a subsidy for fiber - was terminated in 1993.

The US dairy goat population of 1,000,000 head is widely scattered in the US, with major pockets in Texas, the Northeast (Pennsylvania, New Jersey and New York), and Florida. Dairy goat numbers are increasing.

The Southern animals are primarily "brush" goats that are grazed on poor quality pasture. (Goats do well on quality forages but do less well than other livestock.) Goats excel eating browse, weeds, shrubs, etc. In Texas, beef cattle ranchers typically graze goats in pastures to control range shrub and bush growth, so that cattle have more quality grass to graze.

These animals are low quality, low cost animals. Some 200-250,000 southern goats are marketed in the North. These animals combined with imports (300,000 animal equivalents), and estimated 500-600,000 farmgate marketed animals, comprise an effective market of 1.2 - 1.5 million animals.

C. CANADIAN GOAT NUMBERS GROW 40%

Canada's goat industry has shown 42% growth between 1991 and 1996. Exhibit 4 shows this. Growth has been greatest in Alberta, Ontario and Quebec. Alberta goat numbers have doubled. Growth in Ontario and Quebec has been in both meat and milk goat numbers.

Exhibit 4

GOAT PRODUCTION SELECT CANADIAN PROVINCES

1991-1996 CENSUS

StatsCan

The growth in Western goat numbers has been primarily in meat goat production. Alberta goat production is primarily for sale on the West coast.

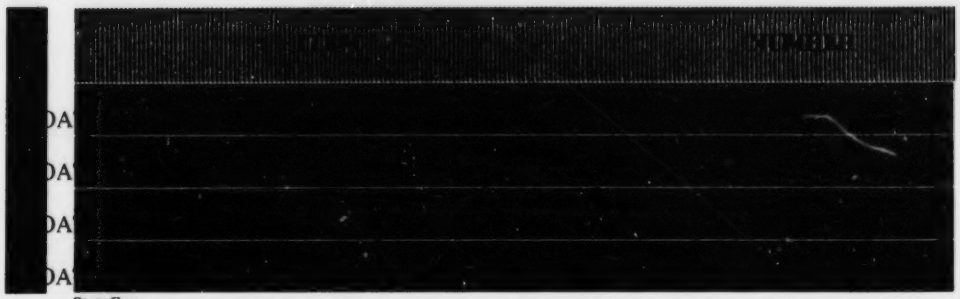
1. Canada Imports 50,000 Carcasses

Exhibit 5 shows Canadian imports and exports. Canada imported some 4,000 live animals and exported another 1,000 animals. The bulk of recent imports are in quality meat and milking goats. Canada imported

some 672 tonnes of frozen and chilled goat meat. On a 30 lbs. per carcass basis, this means Canada imported almost 50,000 goat equivalents. With imports and domestic farm gate sales, the Canadian market for goat is estimated to be around 100,000 to 120,000 carcasses per year. (The unreported nature of farmgate sales makes the determination of market size difficult.)

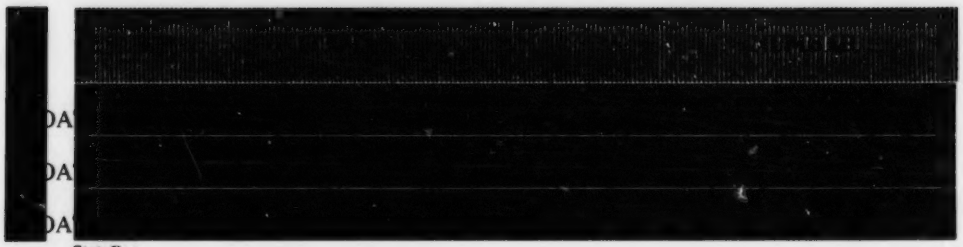
Exhibit 5

CANADIAN IMPORTS AND EXPORTS
GOAT IMPORTS (1999)



StatsCan

GOAT EXPORTS (1999)



StatsCan

D. COMMON ELEMENTS IN THE CANADIAN MEAT AND MILKING GOAT INDUSTRY

The Canadian meat and milking goat industry has a number of common production and market elements. These are outlined in the following section.

1. Common Production Elements

The industry has a number of common production elements, such as:

- Small size - The industry is comprised of small herds. The bulk of operations range from 5-30 animals. The largest dairy operations have 1,000 animals, while the largest meat operations have some 400 animals. The industry has very real technical issues to resolve before it can ever hope to grow to cattle proportions.

- Part-time nature of operation – There are few full-time goat operations. Almost all goat producers have other enterprises or off-farm work. Few have operations large enough to sustain a full-time operation. Goat production is for most, nothing more than a hobby.

- Easy entry – This is a very real problem. For a relatively modest capital investment, of between $500 and $30,000 a person can enter the goat business. Five hundred dollars allows a person to be a hobbyist, while $30,000 allows a person to be reasonably commercial.

- Doesn't compare well with other livestock - Goat is considered a specialty livestock. This is due to a number of issues such as physical size, smell, quality of feed, problems in scaling up production.

2. Common Market Elements

The markets for meat and milk have a number of common elements. These include:

- Primarily ethnic markets – Meat sales are almost exclusively first generation ethnic markets. In the Canadian and US markets, there are essentially two broad groups – southern Europeans (Italian, Greek and Hispanic émigrés) – Islamic followers (Middle East, South Asians, and Asian). Milk sales have grown from ethnic retailers into health food stores, but cheeses (especially feta and soft cheeses) have outgrown the ethnic markets and are rapidly becoming mainstream consumer food items.

- Seasonal markets – Seasonality is a major market influence. Production for meat is aimed at the Christmas, Easter and Muslim festive seasons. The production cycles for meat and milk are affected by the winter season.

- Lack of standards – there are no real quality and grade standards for meat or milk. The only market standards

are very basic ones such as Hallal slaughter (killed in the manner prescribed by Islamic law) for some of the meat markets, pasteurization for milk, and basic Federal inspection for interprovincial and international trade.

- No national markets – Markets are in major urban centers where immigrants congregate and specialty restaurants flourish. Production of meat and milk have been artisanal because of the inability to store soft cheeses unvacuum packed (2 week shelf life) and difficulty in selling kid goat meat (live animals are too fragile to survive moderate transport, or if slaughtered, the meat tends to dry out and toughen).

CONCLUSION

Canada imported some 672 tonnes of frozen and chilled goat meat. On a 30 lbs. per carcass basis, this means Canada imported almost 50,000 goat equivalents. With imports and domestic farm gate sales, the Canadian market for goat is estimated to be around 100,000 to 120,000 carcasses per year. The US market is about 1.2 – 1.5 million carcasses.

The global goat meat trade is a relatively small $50 – 60 US million.

Both market and interest in goat production are increasing.

IV

MARKETS FOR GOAT MEAT IN ATLANTIC CANADA AND THE NORTHEASTERN US

This chapter outlines the major market factors affecting goat meat sales in Atlantic Canada and the US Northeast .

A. MARKET SIZE DIFFICULT TO ESTIMATE

The primary demand for goats meat comes from ethnic markets. The predominantly white, middle class population in Canada and US consumes virtually no goat meat. Moreover, they have little or no access to goat meat. It is the 30 % of the Canadian population and 18% of the US population that emigrated from Southern Asia, Southern Europe and the Middle East who are the market for goat meat. (The market for goat meat is much narrower than the market for goat cheese and goat milk.)

The multicultural communities have expended great effort to keep their identity from being merged into the dominant society. Both food preference and religious affiliation show evidence of this determination. Thus the consumption of goats meat is interwoven into the fabric of tradition and religious observation i.e. Christmas, Easter, Ramadan, etc.

Goat meat is expensive meat, and it is, therefore, incongruous that low income earning immigrants can afford it. Nonetheless consumption continues to rise. This rising consumption is due to:

- Increase in immigration from the Middle East and Asian sub continent.
- Ethnic households have a higher number of wage earners per household than other meat consuming groups.
- Immigrants are used to paying more for food, typically 15-20% more. They spend more of their discretionary income on food.
- Goat meat is a regularly featured holiday fare, especially for religious celebrations, so cost is not as much a concern.

1. US Northeast Ethnic Market Consumes 400,000 Goats

The US ethnic markets are geographically concentrated :

- Hispanic populations are highly concentrated. Over 50% live in six cities: Los Angeles, New York, Miami, San Antonio, San Francisco and Chicago – almost 2 million live in the Northeast.
- The largest Caribbean communities are in New York and Miami – over 500,000 in the Northeast.
- The Muslim community of over 14 million is primarily in the North East and Los Angeles – over 1 million in the Northeast.
- Southern Europeans, primarily Greeks and Italians – over 4 million in the Northeast.

It is this group of 7.5 million immigrants that makes up the largest buying group of goat meat. It is estimated that some 300,000 to 400,000 goats are consumed in the Northeastern US. Over half of the goat consumed is frozen imported Australian product. Fresh product is purchased only for celebrations and holidays. (The large volume of farmgate sales makes it difficult to properly estimate volumes.)

2. Toronto and Montreal Primary Canadian Market

The market for goat meat in Canada is primarily the two cities of Montreal and Toronto. The two cities have over 1 million people of Greek Portuguese, and Italian descent. Southern Europeans are currently the largest ethnic group in Toronto.

In addition to the Southern Europeans, there are about 500,000 East Indians, Lebanese, Syrians and West Indians.

It is this group of 1.5 million Canadians who are the target goat meat eating population. They consume about 90 – 100,000 animals per year. Much like the US, most of the day-to-day goat consumption is frozen meat, while fresh goat is reserved for special occasions.

3. Unique Market Requirements

In order to capitalize on the ethnic market, each market requires a different animal carcass conformation and adjustments to market timing (breeding must be planned 230 – 270 days in advance) in order to access each market niche. This is discussed below:

- Western/Roman Easter - April 23,2000; April 15,2001

  Type of goat wanted - fleshy milk fed kids with relatively light colored meat, 3 months old or younger, at a live weight of 25 lbs. Kids weighing less than 20 lbs. have too low meat to bone ratio and high carcass drying. Kids must gain at least one third of a pound per day to be considered prime. There is a slight price penalty for kids weighing over 40 lbs. live weight.

- Eastern Orthodox/Greek Easter - April 30, 2000; April 22, 2001

  Type of goat wanted – Similar to Western Easter kids, but slightly larger milk fed kid of around 35 lbs.

- Ramadan - November 27, 2000; November 16, 2001

  Type of goat wanted – male or female kids with all of their milk teeth (not older than 12 months.) Males can be whole or castrated. Optimum live weight is around 60 lbs.

- Eid al-Fitr (Festival to end Ramadan fast) - December 27, 2000; December 16, 2001

  Type of goat wanted – same as for Ramadan

- Eid al-Adha Festival of Sacrifice - March 16, 2000; March 5, 2001

  Type of goat wanted - Yearlings (i.e.) animals with one set of adult teeth.

- Christmas - December 25, 2000; December 25, 2001

  Type of goat wanted – milk fed kids - as light as 18 lbs. are acceptable. Specifications aren't as exact as Easter lambs. (It is difficult to find small lambs at this time of

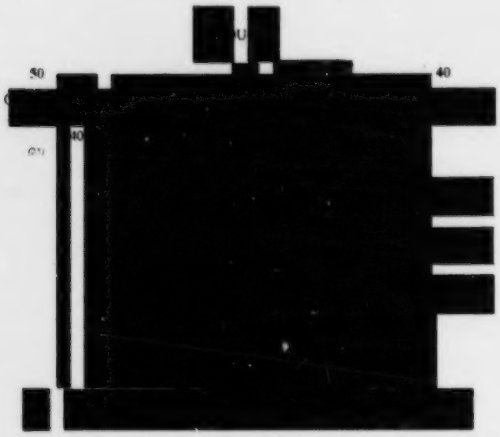
the year since out-of-season breeding in May would be required for October kiddings.)

B. MARKET CHANNELS FOR GOAT MEAT

The domestic market channels for meat goats are outlined in Exhibit 6.

Exhibit 6

MARKET CHANNELS GOATS MEAT



NUMBERS IN ITALICS SHOW THE MARITIME DISTRIBUTION OF GOATS MEAT, IN PERCENT, BY CHANNEL (n. 1)
NUMBERS IN TIMES ROMAN SHOW THE APPARENT DISTRIBUTION, IN PERCENT, OF GOATS MEAT IN THE NORTH EAST (n.)

The goat meat distribution system is comprised of two distinct marketing channels. One is the producer farmgate type, and the other is commercial marketing channel used in Ontario/Western Canada and US.

1. Atlantic Canada Marketing Channel

The marketing channels used in Atlantic Canada to market the 1,000 or so meat goats (see numbers in italics) are outlined below:

- **Producers** – about 70% of Atlantic Canada's goat meat is sold farmgate. (Producer cost is around $0.80 - $1.00/lb). Farmgate goats are sold for around $1.25/lb. The consumer arranged his own slaughter.

- **Order Buyer/Drover** – about 30% of Atlantic Canada's goat meat is sold through drovers.

About 25% of the animals purchased by order buyers are slaughtered on farm or ceremonially in the backyard.

A further 5% of meat is sent to an abattoir for kill, cut and wrap. This meat tends to be sold at farmers markets, local shops and the freezer trade. Brookside and Antigonish do goat slaughter in Nova Scotia.

2. Marketing Channel Used in The US, Ontario and Western Canada

In Ontario and Western Canada, the marketing channel uses both auction and order buyers – see bold numbers in Exhibit 6. (The US Northeastern states' market channel is similar.) It is discussed in more detail below:

- **Order Buyer/Drover** – about 50% (bold numbers) of meat is purchased through order buyers who sell live or arrange for slaughter.

  About 40% of the animals purchased by order buyers are slaughtered on farm or ceremonially in the backyard.

  A further 10% of meat is sent to an abattoir for kill, cut and wrap. This meat tends to be sold at farmers markets and local shops.

- **Producers** - about 10% (bold numbers) of meat is sold farmgate. Farmgate sales are made directly to consumers. Farm gate retailed product is sold for around $50 to $100 per animal live weight. (Producer cost of meat is around $0.80/lb.)

- **Auction** – about 40% of meat goats travel from places such as Western Canada to Cookstown, Ontario on a pooled transport basis; or from Texas to New Holland, Pennsylvania, again on a pooled basis for sale through auction. The live animals tend to be bought by order buyers who then resell the animals to the various ethnic communities. The meat will be slaughtered at various small abattoirs, etc. before being distributed to ethnic wholesale and retail outlets.

3. US Northeast has Large Goat Auctions

Goat auction sales in US Northeast include companies such as :

- Clarke Livestock Market, Skowhegan, Maine; Tuesday auction, about 5 sheep and goats a week.
- Flame Livestock Market, Littleton, Massachusetts; Tuesday sales, about 125 animals a week.
- Livestock Co-op Auction Market Association of New Jersey Inc., Hackettstown, New Jersey; Tuesday sale, about 250 animals per week.
- New Holland Sales Stables Inc., New Holland, Pennsylvania; Monday and Thursday sales for sheep and goats, about 1,000 goats on Monday and 300 goats on Thursday.

The only auction of consequence is the one at New Holland, Pennsylvania. But this is not a big auction by livestock standards. In real terms it auctions about 3 semi-trailer loads of goats per week. The facility sells a further 1,000 or so local and Southern goats per week on a contract sales basis. Auction sales numbers more than double in the weeks leading up to Easter and Eid.

C. TECHNICAL STANDARDS AND SPECIFICATIONS

USDA has been trying to use a common grade designation language for all livestock grading – prime, choice, good and utility. While the grades have merit, the problem is that the bulk of animals are not slaughtered in Federally inspected plants where grades can be attached. The bulk of animals are killed in local abattoirs and in backyards.

More worrisome than the grade is a lack of basic healthfulness standards. Any animal of any size can be sold as long as it looks healthy.

Typical dress out percentages are outlined below:

- 45-52% for goats of 60 to 120 lbs.(hide off, head off)
- 65-72% kid (hide on/head on)
- 55-58% kid (hide off/head on)

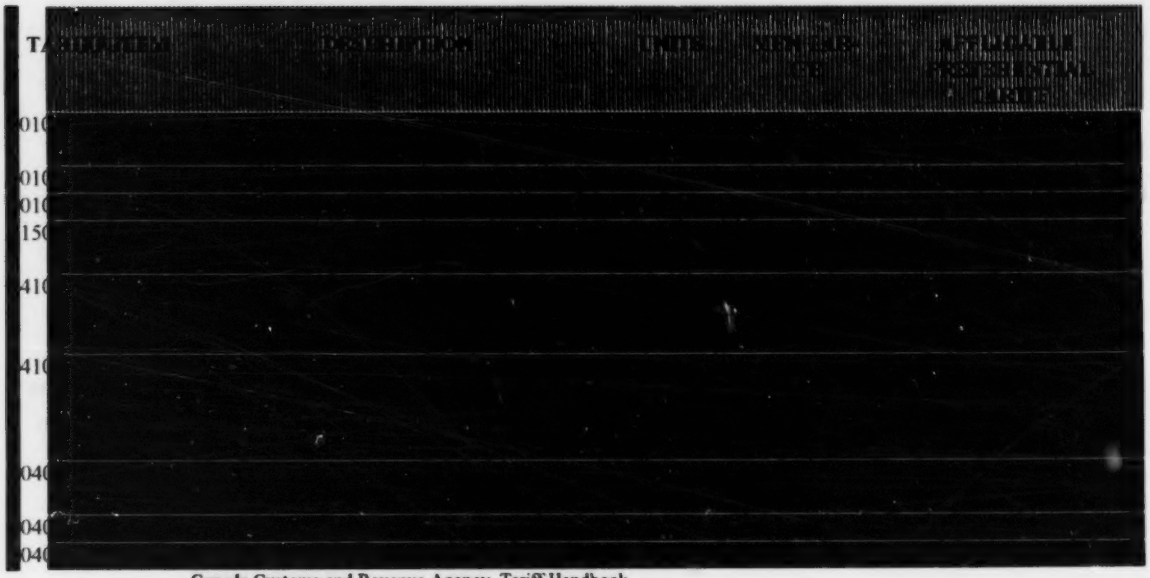
The dress out percentages, show some of the problems in grading. The sale of animals with head-on is extremely difficult from a Federal USDA or CFIA point-of-view. The head-on sales are for Hallal markets. The problem with the head is the horns on many goats. The horns must be cut off, if it is to pass inspection. The Muslim and Jamaican market want the head kept intact.

D. TARIFFS AND NON-TARIFF TRADE BARRIERS

There are no known tariffs and non-tariff barriers that restrict imports, exports and domestic sale of goat meat. Exhibit 7 shows this. The only potential non-tariff is the need for Federal inspection, if the meat is to be exported, or sold interprovincially. For safety reasons, most national supermarket chains will not sell un-inspected meat.

Exhibit 7

CANADIAN IMPORT DUTIES
TARIFF SCHEDULE 1999



Canada Customs and Revenue Agency, Tariff Handbook

The zero-tariff on meat imports means that there is an effective ceiling on the producer price of goat meat. The effective ceiling price is slightly more than about 80 dollars US per carcass. This is the container import price for feral Australian goat meat. The domestic market advantage is due to freshness and better quality.

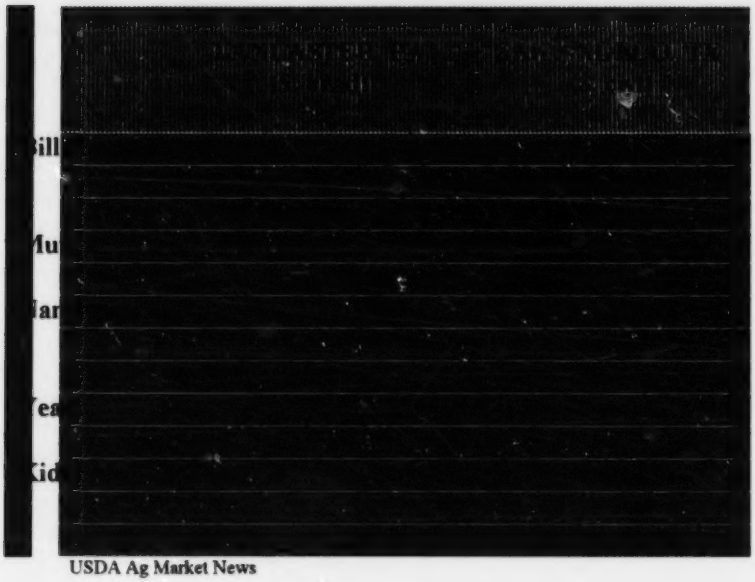
E. PRICE

Typical producer prices for meat goats are shown in Exhibit 8. It shows prices at the 2 largest auction markets in the US, one in the North-east (the largest in the consuming area), and one in Texas (largest in the producing area).

Based on the New Holland/Lancaster prices, 9-21 week old kids command up to $1 - 2 US per pound, live weight.

Exhibit 8

US GOAT PRICES MAJOR MARKETS
LANCASTER, PA; SAN ANGELO, TX
(Avg. YTD 2000, $US)



USDA Ag Market News

The New Holland auction market handles animals primarily from Texas, but also handles animals from the mid-west, as well as the entire US east coast.

Canadian prices are typically based on auction prices set at the Ontario Stockyards, in Cookstown, Ontario. The Cookstown auction market typically handles some 200 animals every Monday, with the Easter market rising to 400 animals. This compares with the largest East-

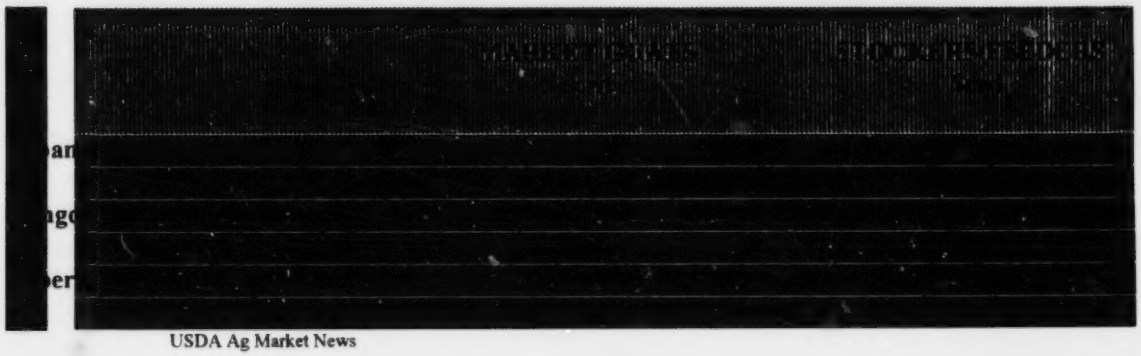
ern US market at New Holland, Pennsylvania. New Holland handles some 1,200 animals on Monday and a further 300 on Thursday, and about 1,000 contract sales.

The price of meat goats in Canada and the US is a function of local buyers and markets. Canadian prices are typically around $1- 1.50 a pound live weight, with young kids 20 – 25 lbs. selling for around $30. The live weight price moves up during ethnic holiday periods such as Ramadan. The price often rises by 20 – 40% depending on the season. Frozen goat meat sells wholesale for around $3.00 per pound carcass weight.

Most goats sold in the Northeast are from Texas and the Southern states. The largest US goat auction market is at San Angelo, Texas. Typical San Angelo prices for market animals and stockers are shown in Exhibit 9.

Exhibit 9

US GOAT PRICES MAJOR BREEDS
MARKET, STOCKERS AND FEEDERS
SAN ANGELO, TX
(Avg YTD 2000, $US)



USDA Ag Market News

Exhibit 9 further shows that the Boer goats, although meatier animals, are not commanding a premium in the marketplace. In the ethnic market, a "kid is a kid," better conformation means little. This is discussed in more detail in the following section.

F. GOAT CONFORMATION FOR SELECT ETHNIC MARKETS

In lieu of national grade standards, the size and conformation depends solely on customer preference. This preference is a function of the ethnic market in which the meat is to be sold.

Carcass and product form is outlined by select ethnic market:

- Greeks – 30-40 lbs. live weight kids for Christmas and Easter

- Italians – prefer kids 20 – 25 lbs. live weight for Christmas and Easter. (mainly in NE US)

- Muslim holidays of Eid al-Fitr and Eid al-Adha. The Muslim market is the only consistent week to week buyer of goat meat. In addition, for these two holidays they buy animals live and do a ceremonial slaughter. Non ceremonial animals are of the same size and conformation but sold slaughtered, fresh chilled. They prefer a lean carcass of 35 lbs. or (70 lbs. live weight.) There is suspicion that larger, fatter carcasses are sheep and not goats. They prefer to purchase head–on to show it was Hallal slaughtered. (This is a problem if the animal has horns. USDA requires horns to be removed to keep the carcass from contamination.)

- Hispanics – prefer kids (cabrito) 15 – 25 lbs. live weight

- Caribbean - prefer 11-18 kg carcasses and older quality mature bucks, intact for curries and goat's-head soup etc.

- Taiwanese (Chinese) market – requires skin on and a dressed weight of 20-35 lbs. The product is sold as a winter food, typically in soup/noodle type dishes. Purchase peaks between June and Chinese New Year. It is believed to keep the body warm.

- Koreans - 60-70 lbs. live weight in winter months

- Malaysia - requires a skin on carcass of 14-16 kgs (Hallal). Demand peaks around November. It is one of the few markets that will take uncastrated male goat carcasses. This market prefers live animals.

- Singapore – prefers a 25 kg carcass, skin off. The product is sold primarily into the restaurant trade.

G. PROMOTION OF GOAT MEAT

In the marketing of goat meat, is that there is no promotion, or industry interest in promotion.

The ethnic nature of the market has meant that goat meat is virtually unknown to mainstream Canadian and US customers. Each of the ethnic and religious groups – Greek, Italian, West Indian and East Indian is so small and their market preferences so distinct that there is no common interest in undertaking promotion. Moreover, there is no national packing company or value-added firm that has an interest in ethnic or non-ethnic promotion. The ethnic packers are too small to be able to afford promotion.

While producer groups in the US and Canada would like to undertake promotion, the industry faces internal conflicts. These conflicts are the result of the introduction of the Boer goat. Boer goat producers are critical of the rest of the meat goat industry. The Boer goat's meat production superiority is unchallenged. However, what was thought to be a better looking meat animal with better carcass conformation etc. has not shown itself to be any more marketable than the Texas brush goats, and dairy goat culls.

The ethnic buyers of goat have been singularly unimpressed with the Boer goat since:

- It doesn't make much difference what kind of kid goat it is, when the market criterion is for a kid of 25 lbs. No kid at this weight can really be described as meaty.
- Price is a more important variable than meat quality.
- Many ethnic buyers are not used to seeing meaty, heavy animals. In Lebanon, for example, the goat is an opportunistic feeder, it wanders and browses; it never grows "meaty" feeding in this manner. The newer, heavy goats do not look like the animals "mother used to cook." The desire is to buy animals that look and taste the same as the animals back home.
- Boer carcasses are often so heavy and large they are mistaken for sheep. Ethnic buyers have been suspicious that sheep carcasses are being passed off as goat.

Clearly the Boer, Kiko and other meat goat breeds have mistaken the market. The unspoken assumption appears to be that the buyer is a

typical red meat consumer who would like to eat a goat "steak." The reality is that steak is a North American and British food item. The ethnic buyer eats meat in a different form - stews, curries, stir fries etc, and roasted on a spit as a celebratory meal – they don't need meaty carcasses. In most countries that eat goat meat, there is no distinction between meat goats and dairy goats – goat is goat. The North American ethnic market has perceived dairy goat to be as good as the meat goat.

In time, and with suitable promotion, goat meat consumers in Canada and the United States will perhaps accept and prefer the meatier goat.

H. SHORT SHELF-LIFE ON GOAT MEAT

Goat meat is a difficult product to store. The ethnic markets have a definite preference for freshness. This has lead to increased slaughter and the chilled storage of carcasses some 10 days ahead of major holidays and celebrations. Typical inventories are a Just-in-Time amount of less than one week's sales.

Most ethnic buyers are interested in goat kids. The problem with kids is that they have thin layers of fat, which tend to allow for fast dehydration and a toughening of meat. Ideally, the market prefers to have the kid slaughtered with hide left on to slow the drying out, (as is the custom in third world countries) but such practise is not allowed under CFIA and USDA rules. The option is to bag the meat and vacuum pack the carcass.

Domestic Canadian and US goats that are slaughtered tend to be sold fresh. Frozen goat carcasses are sold at a discount. Most frozen product is from Australia.

CONCLUSION

The market for goat meat is almost exclusively ethnic. Clearly there is a growing market for goat meat in the United States Northeast and in the Ontario and Quebec markets. This is because of the concentration of ethnic communities and the continued increase in immigration from countries with goat eating traditions.

The current market is the 7.5 million ethnic residents in the US Northeast who consume some 300 - 400,000 animals, and the 1.5 million ethnic residents of Toronto and Montreal who consume 90 - 100,000 carcasses. There is a limited market in Atlantic Canada for some 1,000 or so carcasses.

The market is difficult to penetrate since each ethnic group has a slightly different animal conformation and slaughter date requirement. Moreover, much of the consumer requirement is not "generally regarded as safe" under CFIA and USDA protocols. This lack of grade and processing standards makes it difficult to promote the product into mainstream markets.

Despite these difficulties, it is hoped that future growth will come from the ethnic markets, keeping in mind that ethnic markets prefer to buy chilled kid goats locally.

For New Brunswick meat goat producers the options are to:

- Sell live goats to out-of-province markets and let the various ethnic markets slaughter them to their own specifications. The problem is that each ethnic group requires a slightly different animal. This means animals raised for the Greek market might not be marketable to the Muslim market since it has horns removed, etc.

- More importantly, the sale of "live" animals minimizes the need for CFIA intervention. Federal inspection of abattoirs is prohibitively expensive for small volume plants.

- Slaughter numbers are too small to justify building a small abattoir.

V

GOAT MEAT INDUSTRY TRENDS

The goat meat industry is showing a number of new trends. Among the more significant are:

- The interest of dairy cow producers in getting into the dairy goat business. Ontario is showing a major influx of former dairy cow farmers into the industry. It is a lower cost, higher potential business. The cost of dairy milk quota is so high, that it makes better economic sense to try the goat milk business. For as little as $30,000 an economic start-up of up to 50 goats is possible. This amount hardly buys any marketing board milk quota. More important is the realization that to make money in milk, there is a need to expand goat meat sales in order to maximize their revenues on cull stock and male kids.

- The Boer goat is giving goat meat production a new profile. Many people would like to enter the goat meat business. New entrants are cattle and dairy industry people who have previous livestock experience.

- Indications of ethnic entrepreneurs entering specialty goat production.

- Governments are getting involved. In Canada and the United States, the provincial and state governments are actively encouraging goat production. Almost every province other than New Brunswick has a goat specialist. Some US states such as New York have a goat production and marketing person as part of their economic development departments.

- Industry is getting too trendy. In many ways the goat industry is taking on the breeding stock frenzy which overtook the ratite business. Industry interest and hype is focussed on the Boer goat.

More specific producers and processor trends are outlined in the next section.

A. ABATTOIR AND PROCESSOR ISSUES

Abattoir and value-added processor issues include the following:

- Inconsistent supply – the weekly supply of carcasses is too variable because the overall number of shippers is too small. When there are only 2 or 3 shippers, a failure of one farmer to deliver because of snow, power failure, disease etc. is catastrophic. More importantly, the seasonality of market makes the operation of an abattoir difficult. It is not economic to reserve a small abattoir for one day a week or one day per month, and then attempt to slaughter vastly larger numbers in the 2 to 3 weeks before Easter and Eid.

  To make an abattoir viable, there needs to be an ongoing stable business. Most abattoirs that handle goat also handle other small animals such as sheep, hogs, ratites and game such as fallow deer. These other animals have a much more stable market than goat. These other animals provide an abattoir its operating baseload. (The slaughter of hogs would eliminate the abattoir from being used for Hallal slaughter.)

  A small Federal inspected multi-species abattoir that can handle around 200 animals per week on a one-shift basis costs some $170,000 to build. (A Hallal plant of this type and size has been built on a farm outside of Regina, to handle sheep, goats, ratites, rabbits and deer.)

- Expensive and difficult to transport – the inability to ship small kid goats any great distance. The animals are too fragile at 20 – 25 lbs. to take much of a haul. More importantly there are not enough animals to fill a possum belly trailer. At best there are problems finding enough animals to fill a small goose-neck trailer. (It should be noted that the volumes passing through auction are but a fraction of the total sales, most goats are transported in volumes of less than 10.)

- Variability of quality – this is due to two factors. One is related to breed of goat. Those animals with a Boer cross are better quality than dairy breeds. The other major variable is the quality of feed which affects meat quality.

- Need dairy goat production to back up meat goat production. It is speculated that more than half of meat goats

are cull dairy animals. Because of the size and growth of the goat milk industry the number of culls is expected to become larger. There is a need for integration between the two different production groups i.e. some form of contract sales, or backgrounding of cull dairy kids.

- Need to set up drovers and brokers in each of the ethnic market segments – Greek, Italian, Muslim and Jamaican. Each group buys a slightly different animal conformation.

- No market outside the ethnic trade – there is no apparent interest in marketing goat meat into mainstream markets. There is no attempt to increase distribution because there is no interest on the part of ethnic wholesalers and distributors to move into higher volume, lower priced markets when they are already short of supply.

- Need grade standards – there needs to be some form of standards before national supermarkets will accept product. Moreover because of current market seasonality the availability of the product is too variable to allow for a standard product listing.

- Need Federal inspection for most abattoirs. Volumes are too small to allow large Federally approved plants to enter the goat meat business. Most goat abattoirs are so small they can't afford to be Federally approved. Most plants slaughter less than one day a week. Many plants only operate during the Christmas and Easter overflow season. More importantly, the ethnic customers who are buying the meat do not feel there is a quality or health security problem. The abattoirs are better than anything they had "back-home."

Many of these processor problems can be resolved by increased scale of operations. However, many processors do not wish to expand their goat slaughter beyond their current one or two day per week kills.

B. PRODUCER ISSUES

Producer issues are as difficult as processor ones. The major producer issues include:

- Producers do not trust the processor – this lack of trust is due to a number of factors such as dealing with drovers.

- Quirkiness of goats – the nature of the animal has to be understood and dealt with. There are problems in terms of herd hierarchy. It is difficult to introduce a new adult animal into the herd or onto the truck. Issues such as this make it difficult to merge animals from different farms in order to make-up a load.

- Need larger production units – the cost and management requirements are too much for many producers. Many producers do not wish to grow beyond their part time producer status. They wish to remain small, and therefore remain unable to deal with problems such as predator control, seasonal breeding for niche market sales, etc.

- Very labour intensive – goats respond very well to intensive management such as estrus control. But this takes time and most producers are part-time.

- Need quality barns and fencing – there is a need for a quality facility set-up, if labour is to be minimized and winter kidding is to take place, so that goat kids are available for Easter sales.

- Low productivity – average daily gain is under ½ lb. per day for kids. Higher daily growth rates are needed to become economic.

- Seasonality in the cull markets – the seasonal nature of meat markets makes it difficult to get a good price for dairy culls and male dairy kids year round. This makes it important that distribution arrangements be established with ethnic market drovers and brokers in order to clear the market during non-peak market periods.

- Part-time nature of production – this means that the current scale and industry economics may be as good as it will ever get.

C. NEW BRUNSWICK MEAT GOAT ISSUES

New Brunswick is not particularly conducive to the meat goat industry. Major issues include:

- Small local markets – the market for goat meat in the province and in Atlantic Canada is small. Total meat markets amount to no more than 1,000 kids per year. The market is currently supplied by farmgate sales.

- Distance from urban markets - makes it difficult to find good prices for old heavy goats, spent dairy culls, and small kids. The logical value market would be Montreal or Boston. But there aren't enough animals to make a small load.

- Cold, long winters. Winter makes goat production more expensive because they need shelter, lights and supplemental feeding. More importantly, most breeds suffer health problems due to cold.

- Industry needs new entrants. There hasn't been a rush to enter the industry in New Brunswick as there has been in Ontario and the US. There is minimal expertise on goats locally and very little expertise anywhere else in North America. Goats react differently than cattle so even dairy cattle experience although good is not adequate.

- Environmental issues in New Brunswick are unique. Environmental regulations that require licensing tend to work against buying old farmsteads in order to convert old hog and chicken barns to goat production.

CONCLUSION

The farm production and processing trends are negative for New Brunswick. While ethnic markets are growing, and the number of people interested in entering the goat meat industry is growing, the Atlantic Canada industry is contracting. There are a declining number of producers and Federally inspected processors. The industry must develop to a critical mass, so that it can take advantage of markets outside its borders. For the industry to go ahead, the meat and milk goat sectors must work together to increase meat production volumes.

VI

PRODUCTION FEASIBILITY – MEAT GOAT

In this chapter we develop data related to the production feasibility of meat goats. The problem for New Brunswick producers is the inability to develop large meat production units. Scale is required due to the need to:

- Have sufficient production to be self-sustainable – there is not enough industry infrastructure to allow small producers to survive.
- Make transport economic. The objective is to have enough animals to get full loads of animals for sale in Boston, or Montreal.
- Have sufficient volume to justify full time production.
- Have enough animals to get slaughter plant kill line allocation, so animals need not be sold farmgate.
- Have sufficient profitability (15% return on sales) to be able to undertake quality production.

Scale is required to allow a level of synergy and integration with existing dairy producers such as Cabot Caprine in Newfoundland, and Fox Hollow in Nova Scotia. A larger meat production unit could buy or share the feeding out of their cull male dairy goats. These facilities generate some 500 additional kids for the meat trade. The ideal would be a critical mass of 1,000 marketable goats per year, of which over half would be produced on-farm. This means the basic operation should be at least a 300 doe meat goat operation.

A. COST OF PRODUCTION - 300 DOE MEAT HERD

The cost of production for a three hundred doe meat operation is outlined In Exhibit 10. The assumptions are conservative based on New York state, Manitoba and Ontario production conditions. We believe these costs may be achievable in New Brunswick. The basic assumptions are:

- Price of kids - $1.25 per lbs.
- Kid sales – 553 hd

- Kidding crop – 95%
- Replacement cost of does - $200
- Replacement cost of bucks – $1,000
- Feed grains are based on prices FOB Truro
- Land required – 150 acres of poor pasture
- Total fencing - 2 miles, cost of $1,500 per mile
- Building and water system (30x32 Calving barn) - $13,640
- Long term debt – animals - $55,000
- Long term leases – land - $30,000
- Operating capital - $16,000
- Machinery – used tractor with loader - $10,000
- Interest rate – 7.75% to borrow operating capital
- Rations – doe –150 days on feed (2 lbs/day), 240 days on forages (4 lbs/day)

  - bucks – 60 days on grain (2 lbs/day), 240 days on forages (4 lbs/day)

  - kid – 60 days on feed (1 lbs/day)
- Bedding – straw – doe/buck (100 lbs/yr) $20/ton
- Predator control – use of a llama.

Other detailed parameters are outlined in Exhibit 10, Cost of Production.

The use of purchased feed grains makes a tremendous difference in profitability. High quality imported feed grains do not appear to make a major difference in overall animal productivity. The animals do almost as well on low quality feed grains (screenings) and browse. Goats do not convert high protein feeds into weight gain as well as do other animals. When oats are pastured, and fed screenings one can expect a profit of approximately $17 per head. When fed quality feed grains and pastured, there is a loss of around $1 per head.

Ideally, meat goats should be grass fed on low quality woodlot, salt marsh, etc., with a minimum of grain screenings. Goats do well on reforested areas eating shrubs, soft wood brush, and grasses.

Meat goats need to be raised on the cheapest land, fed the cheapest feed, and housed in the cheapest shelters in order to remain competitive in the export and local markets.

CONCLUSIONS

To be viable the minimum size of meat goat operation would need to be at least 300 doe meat goats. This herd size would allow for a marginally economic standalone operation. In addition, the contracting and/or purchase of cull dairy goats would allow for synergy in the meat and dairy goat production by regionally integrating transport and marketing.

Exhibit 10

MEAT GOAT ANALYSIS - 300 HEAD

Number of does (nannies)	Hd	300
Number of bucks (billies)	hd	10
Kidding crop	%	95
Kid mortality rate	%	3
Number of kids born/doe (nanny)	hd	2
Number of kids born	hd	570
Number of kids marketed	hd	553
Average market weight	lbs	90
Herd mortality rate	%	2
Kid market price	$/lbs	$ 1.25
Replacement rate does	years	10
Replacement rate bucks	years	6

Feed Cost Requirements

Grain Ration	Ration %	Price $/t	Ration $/t
Oats	0.300	$191.48	$ 57.44
Barley	0.300	$160.68	$ 48.20
Corn (screenings)	0.300	$ 164.98	$ 49.49
Molasses	0.075	$ 210.00	$ 15.75
Salt	0.008	$ 214.00	$ 1.71
Mineral	0.017	$ 1,000.00	$ 17.00
Total	1.000		$ 119.07

Forage Ration	
Dairy quality	$ 80.00
Meat quality	$ 40.00

	Grain Ration		Forage Ration		Pasture
	lbs./day	No. of days	Lbs./day	no. of days	no. of days
Doe gestation	2	150	4	240	140
Buck	2	60	4	240	140
Kids	1	60			140

Revenues:	Unit	No.	$/Unit	$/kid	$/Year
Breeding doe kid sales	hd	0	$ 150.00	$ 0.00	$ 0.00
Breeding buck kid sales	hd	0	$ 250.00	$ 0.00	$ 0.00
Other breeding stock sales	hd	0	$ 0.00	$ 0.00	$ 0.00
Cull doe sales	hd	24	$ 60.00	$ 2.60	$ 1,440.00
Cull buck sales	hd	0.4	$ 123.75	$ 0.09	$ 49.50
Market kid sales	hd	553	$ 90.00	$ 112.50	$ 62,212.50
Total Revenues				$ 115.19	$ 63,702.00

Expenses:	$/kid
Variable Costs:	
Purchased feed	
Doe ration	$ 34.89
Buck ration	$ 0.83
Kid ration	$ 6.19
Total purchased feed costs	$ 41.91
Home grown feed	
Pasture	$ 0.26
Straw	$ 0.56
Total home grown feed	$ 0.82
Total Feed Costs	$ 42.73
Livestock Replacement:	
Buck purchases	$ 1.08
Replacement doe purchases	$ 10.85
Other	
Total Replacement Stock	$ 11.93
Other :	
Veterinary and medicine	$ 2.60
Fuel, maintenance, repairs	$ 3.25
Utilities	$ 0.54
Marketing and transportation	$ 13.13
Death losses	$ 2.53
Manure removal	$ 0.36
Insurance	$ 0.20
Miscellaneous	$ 0.90
Labour	$ 20.89
Operating interest	$ 3.30
Total Variable Cost	$102.36
Fixed Costs:	
Depreciation	$ 2.50
Interest on term loans	$ 7.54
Long-term leases	$ 4.02
Total Fixed Costs	$ 14.06
Profitability:	
Total Revenues	$ 115.19
less Variable Costs	$102.36
Operating Margin	$ 12.83
less Fixed Costs	$ 14.06
Net Income	$ (1.23)

Breakeven:	**kids sold**
Variable Costs	$ 102.36
Fixed Costs	$ 14.06
Total Costs	$116.42

APPENDIX

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